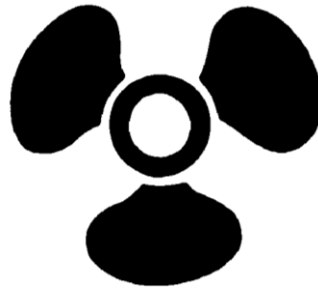


# CHAPTER 51



## MACHINIST'S MATE (MM)

NAVPERS 18068-51G  
CH-64

Updated: October 2015

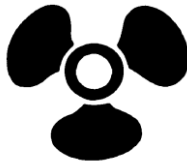
TABLE OF CONTENTS  
MACHINIST'S MATE (AUXILIARY) (MME)

<b>SCOPE OF RATING</b>	MM-3(E)
<b>GENERAL INFORMATION</b>	MM-4(E)
<b>AUXILIARY EQUIPMENT TECHNICIAN</b>	MM-5(E)
MECHANICAL MAINTENANCE	MM-5(E)
MECHANICAL SYSTEMS OPERATIONS	MM-7(E)
QUALITY ASSURANCE	MM-8(E)
<b>AUXILIARY EQUIPMENT OPERATOR</b>	MM-9(E)
MECHANICAL MAINTENANCE	MM-9(E)
MECHANICAL SYSTEMS OPERATIONS	MM-10(E)
QUALITY ASSURANCE	MM-10(E)
<b>AUXILIARY EQUIPMENT MANAGER</b>	MM-11(E)
MECHANICAL MAINTENANCE	MM-11(E)
MECHANICAL SYSTEMS OPERATIONS	MM-11(E)
QUALITY ASSURANCE	MM-11(E)

NAVY ENLISTED OCCUPATIONAL STANDARD

FOR

MACHINIST'S MATE (AUXILIARY) MM(E)



SCOPE OF RATING

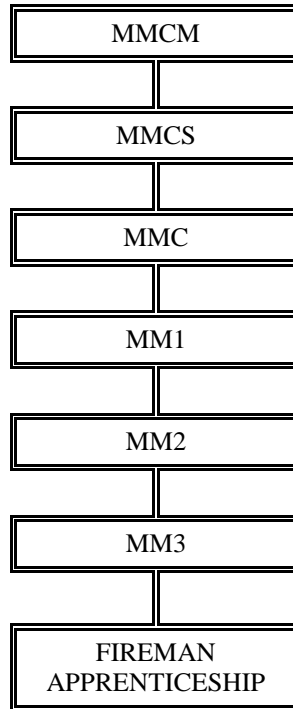
Machinist's Mates (Auxiliary) (MME) operate, maintain, and repair (at the organizational and intermediate level) damage control equipment and systems, internal combustion diesel engines and diesel engine support systems, hydraulic systems, atmosphere control and oxygen-generating equipment, refrigeration systems, compressed air and gas systems, potable water system, seawater systems, and sanitary and plumbing systems.

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This Occupational Standard is to be incorporated in Volume I, Part B, of the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards (NAVPERS 18068F) in Chapter 51.

## GENERAL INFORMATION

### CAREER PATTERN



Normal path of advancement to Chief Warrant Officer and Limited Duty Officer categories can be found in OPNAVINST 1420.1.

For rating entry requirements, refer to MILPERSMAN 1306-618.

### **SAFETY**

**The observance of Operational Risk Management (ORM) and proper safety precautions in all areas is an integral part of each billet and the responsibility of every Sailor; therefore, it is a universal requirement for all ratings.**

**Job Title****Auxiliary Equipment Technician****Job Code****001519****Job Family**

Installation, Maintenance, and Repair

**NOC**

TBD

**Short Title (30 Characters)**

AUXILIARY EQUIPMENT TECHNICIAN

**Short Title (14 Characters)**

AUX EQUIP TECH

**Pay Plan**

Enlisted

**Career Field**

MME

**Other Relationships and Rules**

NEC's may include 42XX series

**Job Description**

Auxiliary Equipment Technicians perform organizational and intermediate maintenance as well as advanced systems operations of hydraulic power plants and hydraulic system components, emergency diesel engines, compressed gas systems (air, oxygen, hydrogen, and nitrogen), sanitation systems, seawater systems, freshwater systems, oxygen-generating equipment, atmosphere control equipment, and submarine salvage equipment (watertight hatches and doors) and supervise operations and maintenance performed by Auxiliary Equipment Operators.

**DoD Relationship****Group Title**

Shipboard Propulsion

**DoD Code**

165000

**O\*NET Relationship****Occupation Title**Maintenance and Repair Workers,  
General**SOC Code**

49-9071.00

**Job Family**Installation, Maintenance and  
Repair**Skills***Equipment Maintenance**Operation and Control**Operation Monitoring**Reading Comprehension**Troubleshooting**Quality Control Analysis**Systems Evaluation**Management of Material Resources**Monitoring***Abilities***Manual Dexterity**Written Comprehension**Multi-limb Coordination**Problem Sensitivity**Deductive Reasoning**Control Precision**Inductive Reasoning***MECHANICAL MAINTENANCE****Pavgrade****Task Type****Task Statements**

E4

CORE

Lubricate components

E4

CORE

Maintain air system components

E4

CORE

Maintain atmosphere control equipment

E4

CORE

Maintain auxiliary drain systems

E4

CORE

Maintain damage control equipment

E4

CORE

Maintain demineralized water systems

E4

CORE

Maintain depth sensing systems

E5

CORE

Maintain diesel engine support systems

E5

CORE

Maintain diesel engines

E4

CORE

Maintain drain systems

E5

NON-CORE

Maintain dry deck shelter systems

E4

CORE

Maintain escape trunks

E4

CORE

Maintain fresh water cooling systems

E4

CORE

Maintain habitability systems

E4

CORE

Maintain hydraulic system components

E4

CORE

Maintain oxygen and nitrogen systems

E5

CORE

Maintain oxygen-generating equipment

E4	CORE	Maintain potable water system components
E4	CORE	Maintain refrigeration system components
E4	CORE	Maintain salvage components
E4	CORE	Maintain ship service hydraulic plants
E5	CORE	Maintain steering and diving control systems
E4	CORE	Maintain steering and diving hydraulic plants
E4	CORE	Maintain submarine lubrication system
E4	CORE	Maintain trim system components
E4	CORE	Maintain variable ballast system components
E4	CORE	Maintain ventilation system components
E4	CORE	Maintain watertight doors and hatches
E4	CORE	Perform corrective maintenance on air system components
E5	CORE	Perform corrective maintenance on atmosphere control equipment
E4	CORE	Perform corrective maintenance on auxiliary drain system components
E4	CORE	Perform corrective maintenance on damage control equipment
E4	CORE	Perform corrective maintenance on demineralized water system
E5	CORE	Perform corrective maintenance on depth sensing system
E5	CORE	Perform corrective maintenance on diesel engine and support systems
E4	CORE	Perform corrective maintenance on drain system components
E5	CORE	Perform corrective maintenance on dry deck shelter systems
E4	CORE	Perform corrective maintenance on escape trunks
E4	CORE	Perform corrective maintenance on fresh water cooling systems
E4	CORE	Perform corrective maintenance on habitability systems
E4	CORE	Perform corrective maintenance on hydraulic system components
E5	CORE	Perform corrective maintenance on main ballast tank vent components
E5	CORE	Perform corrective maintenance on oxygen and nitrogen systems
E5	CORE	Perform corrective maintenance on oxygen-generating equipment
E4	CORE	Perform corrective maintenance on potable water system
E4	CORE	Perform corrective maintenance on refrigeration systems
E4	CORE	Perform corrective maintenance on salvage components
E4	CORE	Perform corrective maintenance on shipboard pumps
E4	CORE	Perform corrective maintenance on shipboard valves
E5	CORE	Perform corrective maintenance on steering and diving control systems
E4	CORE	Perform corrective maintenance on submarine lubrication systems
E4	CORE	Perform corrective maintenance on trim systems
E4	CORE	Perform corrective maintenance on ventilation systems
E4	CORE	Perform corrective maintenance on water tight doors and hatches
E5	CORE	Perform preventive maintenance on air system components
E5	CORE	Perform preventive maintenance on atmosphere control equipment
E4	CORE	Perform preventive maintenance on auxiliary drain system components
E4	CORE	Perform preventive maintenance on damage control equipment

E4	CORE	Perform preventive maintenance on demineralized water system
E4	CORE	Perform preventive maintenance on depth sensing system
E4	CORE	Perform preventive maintenance on diesel engine and support systems
E4	CORE	Perform preventive maintenance on drain system components
E5	NON-CORE	Perform preventive maintenance on dry deck shelter systems
E5	CORE	Perform preventive maintenance on escape trunks
E4	CORE	Perform preventive maintenance on fresh water cooling systems
E4	CORE	Perform preventive maintenance on habitability systems
E4	CORE	Perform preventive maintenance on hydraulic system components
E5	CORE	Perform preventive maintenance on oxygen and nitrogen systems
E5	CORE	Perform preventive maintenance on oxygen-generating equipment
E4	CORE	Perform preventive maintenance on potable water system
E5	CORE	Perform preventive maintenance on refrigeration systems
E5	CORE	Perform preventive maintenance on salvage components
E4	CORE	Perform preventive maintenance on shipboard pumps
E4	CORE	Perform preventive maintenance on shipboard valves
E6	CORE	Perform preventive maintenance on steering and diving control systems
E4	CORE	Perform preventive maintenance on submarine lubrication systems
E4	CORE	Perform preventive maintenance on trim systems
E5	CORE	Perform preventive maintenance on variable ballast systems
E4	CORE	Perform preventive maintenance on ventilation systems
E5	CORE	Perform preventive maintenance on water tight doors and hatches
E7	CORE	Supervise diesel inspections

#### **MECHANICAL SYSTEMS OPERATIONS**

<b><u>Pavgrade</u></b>	<b><u>Task Type</u></b>	<b><u>Task Statements</u></b>
E4	CORE	Adjust air system components
E4	CORE	Adjust hydraulic system components
E5	CORE	Adjust refrigeration system components
E5	CORE	Adjust steering and diving control systems
E4	CORE	Maintain shipboard pumps
E4	CORE	Operate air system components
E5	CORE	Operate atmosphere control equipment
E4	CORE	Operate auxiliary drain systems
E4	CORE	Operate depth sensing systems
E4	CORE	Operate diesel engines and support systems
E4	CORE	Operate drain systems
E5	NON-CORE	Operate dry deck shelter systems
E4	CORE	Operate external hydraulic plants
E4	CORE	Operate fresh water cooling systems
E4	CORE	Operate hydraulic system components
E4	CORE	Operate main ballast tank vent components

E4	CORE	Operate oxygen and nitrogen systems
E5	CORE	Operate oxygen-generating equipment
E4	CORE	Operate potable water systems
E4	CORE	Operate refrigeration systems
E4	CORE	Operate ships service hydraulic plants
E4	CORE	Operate steering and diving control systems
E4	CORE	Operate stern diving plants
E4	CORE	Operate submarine emergency life support systems
E4	CORE	Operate submarine habitability systems
E4	CORE	Operate submarine salvage systems
E4	CORE	Operate trim systems
E4	CORE	Operate ventilation systems

#### **QUALITY ASSURANCE**

<b><u>Paygrade</u></b>	<b><u>Task Type</u></b>	<b><u>Task Statements</u></b>
E5	CORE	Perform Quality Assurance (QA) inspections



**Job Title****Auxiliary Equipment Operator****Job Code****001524****Job Family**

Installation, Maintenance, and Repair

**NOC**

TBD

**Short Title (30 Characters)**

AUXILIARY EQUIPMENT OPERATOR

**Short Title (14 Characters)**

AUX EQUIP OPER

**Pay Plan**

Enlisted

**Career Field**

MME

**Other Relationships and Rules**

NEC's may include 42XX series

**Job Description**

Auxiliary Equipment Operators perform operations and basic preventive maintenance of hydraulic power plants and hydraulic system components, emergency diesel engines, compressed gas systems (air, oxygen, hydrogen, and nitrogen), sanitation systems, seawater systems, freshwater systems, submarine firefighting, and emergency dewatering and damage control equipment.

**DoD Relationship****O\*NET Relationship****Group Title**

Shipboard Propulsion

**DoD Code**

165000

**Occupation Title**Maintenance and Repair Workers,  
General**SOC Code**

49-9071.00

**Job Family**Installation, Maintenance and  
Repair**Skills***Operation and Control**Operation Monitoring**Equipment Maintenance**Troubleshooting**Monitoring**Quality Control Analysis***Abilities***Manual Dexterity**Deductive Reasoning**Problem Sensitivity**Written Comprehension**Control Precision**Multi-limb Coordination**Information Ordering***MECHANICAL MAINTENANCE****Paygrade****Task Type****Task Statements**

E4

CORE

Lubricate components

E4

CORE

Maintain ship service hydraulic plants

E4

CORE

Perform corrective maintenance on air system components

E5

CORE

Perform corrective maintenance on atmosphere control equipment

E4

CORE

Perform corrective maintenance on auxiliary drain system components

E4

CORE

Perform corrective maintenance on damage control equipment

E4

CORE

Perform corrective maintenance on demineralized water system

E5

CORE

Perform corrective maintenance on depth sensing system

E5

CORE

Perform corrective maintenance on diesel engine and support systems

E4

CORE

Perform corrective maintenance on drain system components

E5

CORE

Perform corrective maintenance on dry deck shelter systems

E4

CORE

Perform corrective maintenance on escape trunks

E4

CORE

Perform corrective maintenance on fresh water cooling systems

E4

CORE

Perform corrective maintenance on habitability systems

E4

CORE

Perform corrective maintenance on hydraulic system components

E5

CORE

Perform corrective maintenance on main ballast tank vent components

E5

CORE

Perform corrective maintenance on oxygen and nitrogen systems

E5

CORE

Perform corrective maintenance on oxygen-generating equipment

E4

CORE

Perform corrective maintenance on potable water system

E4

CORE

Perform corrective maintenance on refrigeration systems

E4

CORE

Perform corrective maintenance on salvage components

E5	CORE	Perform corrective maintenance on steering and diving control systems
E4	CORE	Perform corrective maintenance on submarine lubrication systems
E4	CORE	Perform corrective maintenance on trim systems
E4	CORE	Perform corrective maintenance on water tight doors and hatches

#### **MECHANICAL SYSTEMS OPERATIONS**

<b><u>Pavgrade</u></b>	<b><u>Task Type</u></b>	<b><u>Task Statements</u></b>
E4	CORE	Adjust air system components
E4	CORE	Adjust hydraulic system components
E5	CORE	Adjust refrigeration system components
E5	CORE	Adjust steering and diving control systems
E4	CORE	Maintain shipboard pumps
E4	CORE	Operate air system components
E5	CORE	Operate atmosphere control equipment
E4	CORE	Operate auxiliary drain systems
E4	CORE	Operate depth sensing systems
E4	CORE	Operate diesel engines and support systems
E4	CORE	Operate drain systems
E5	NON-CORE	Operate dry deck shelter systems
E4	CORE	Operate external hydraulic plants
E4	CORE	Operate fresh water cooling systems
E4	CORE	Operate hydraulic system components
E4	CORE	Operate main ballast tank vent components
E4	CORE	Operate oxygen and nitrogen systems
E5	CORE	Operate oxygen-generating equipment
E4	CORE	Operate potable water systems
E4	CORE	Operate refrigeration systems
E4	CORE	Operate ships service hydraulic plants
E4	CORE	Operate steering and diving control systems
E4	CORE	Operate stern diving plants
E4	CORE	Operate submarine emergency life support systems
E4	CORE	Operate submarine habitability systems
E4	CORE	Operate submarine salvage systems
E4	CORE	Operate trim systems
E4	CORE	Operate ventilation systems

#### **QUALITY ASSURANCE**

<b><u>Pavgrade</u></b>	<b><u>Task Type</u></b>	<b><u>Task Statements</u></b>
E4	CORE	Perform Quality Assurance (QA) maintenance

**Job Title****Auxiliary Equipment Manager****Job Code****001532****Job Family**

Production

**NOC**

TBD

**Short Title (30 Characters)**

AUXILIARY EQUIPMENT MANAGER

**Short Title (14 Characters)**

AUX EQUIP MGR

**Pay Plan**

Enlisted

**Career Field**

MME

**Other Relationships and Rules**

NEC's may include 42XX series

**Job Description**

Auxiliary Equipment Managers manage auxiliary division operations, maintenance, and training of hydraulic power plants and hydraulic system components, emergency diesel engines, compressed gas systems (such as air, oxygen, hydrogen, and nitrogen), sanitation systems, seawater systems, freshwater systems, oxygen-generating equipment, atmosphere control equipment, and submarine salvage equipment such as watertight hatches and doors. They also train, mentor, and supervise the operations and maintenance performed by Auxiliary Equipment Technicians and Operators.

**DoD Relationship****Group Title**

Shipboard Propulsion

**DoD Code**

165000

**O\*NET Relationship****Occupation Title**

First-Line Supervisors of Managers,  
Mechanics, Installers, and  
Repairers

**SOC Code**

49-1011.00

**Job Family**

Installation, Maintenance and  
Repair

**Skills***Management of Material Resources**Management of Personnel Resources**Monitoring**Quality Control Analysis***Abilities***Inductive Reasoning**Oral Expression**Deductive Reasoning**Information Ordering***MECHANICAL MAINTENANCE****Paygrade****Task Type****Task Statements**

E7

CORE

Supervise diesel engine corrective maintenance

E7

CORE

Supervise diesel inspections

E6

CORE

Supervise hydraulic corrective maintenance

E7

CORE

Supervise oxygen-generating plant corrective maintenance

E6

CORE

Supervise oxygen-generating plant operation

E7

CORE

Supervise steering and diving control system maintenance

**MECHANICAL SYSTEMS OPERATIONS****Paygrade****Task Type****Task Statements**

E7

CORE

Supervise diesel engine operations

E6

CORE

Supervise habitability and sanitation operations

E6

CORE

Supervise hydraulic system operations

E6

CORE

Supervise oxygen and nitrogen systems maintenance

E6

CORE

Supervise oxygen and nitrogen systems operations

**QUALITY ASSURANCE****Paygrade****Task Type****Task Statements**

E5

CORE

Develop Quality Assurance (QA) packages

E4

CORE

Perform Quality Assurance (QA) maintenance

E7

CORE

Review Quality Assurance (QA) packages